



## **9. What methods have been used by other states or countries to set renewable targets?**

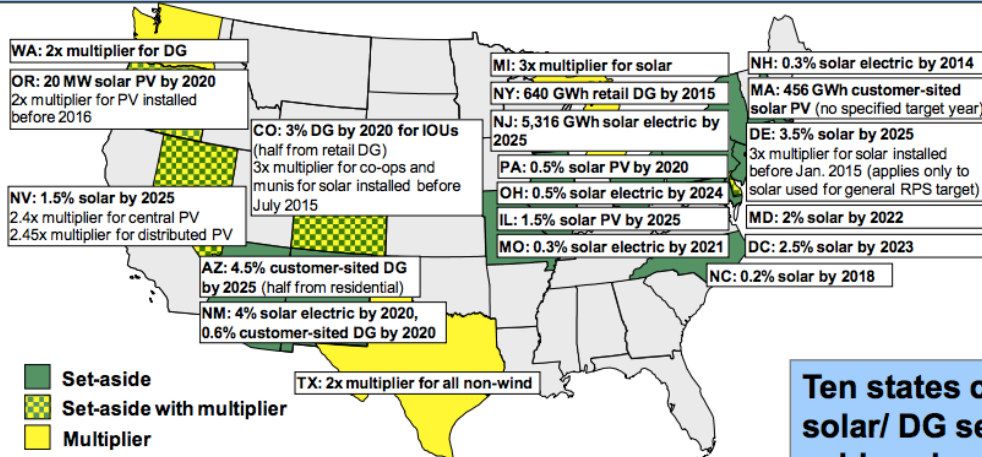
There is an excellent document (attached) that was produced by the Clean Energy States Alliance looking at some of the different ways of structuring RPS. A recent presentation by Ryan Wiser from LBNL demonstrates the potential impacts of RPS policies as well as where various states are in achieving their RPS goals.

Generally states have goals based on a percentage of retail sales by a specified date. In some states there energy efficiency is an acceptable resource for meeting up to a portion of the RPS. In Ohio, utilities may use “alternative energy resources” which are defined in statute to meet up to 50% of the 25% standard.

Some lessons have been learned regarding RPS policies over time:

1. Set a standard that is designed to drive economic development – that is, set a standard that only applies to new generation. Many times there are efforts by interested parties to find ways in which they can qualify without any changes in their current portfolio, or without meeting the full standard. This isn’t the point of the standard. One could always set a higher number and include existing resources, but the purpose of the RPS is to diversify the current portfolio, reduce risk within the current portfolio and increase environmental objectives relative to the current portfolio – as a result, the RPS should not include the current portfolio of resources. If the idea is to look at the entire portfolio of resources and their relative emissions, then perhaps an emissions standard across the portfolio would be a more appropriate mechanism for achieving that goal than an RPS.
2. Carve-outs can drive development of specific technologies or groups of technologies. Solar carve-outs within RPS goals have been very successful in building a robust solar market and driving down installation costs throughout the country. In other areas, distributed generation carve-outs that are technology neutral and based on a size of production have been successful. Generally, either of these options benefit from a statutory distinction that will promote diversity within the market place. These kinds of market segmentations may include residential vs commercial and retail vs wholesale markets ensuring a broad economic impact in the achievement of the standard.

**16 states + D.C. have solar or DG set-asides, sometimes combined with credit multipliers; 3 other states only have credit multipliers**

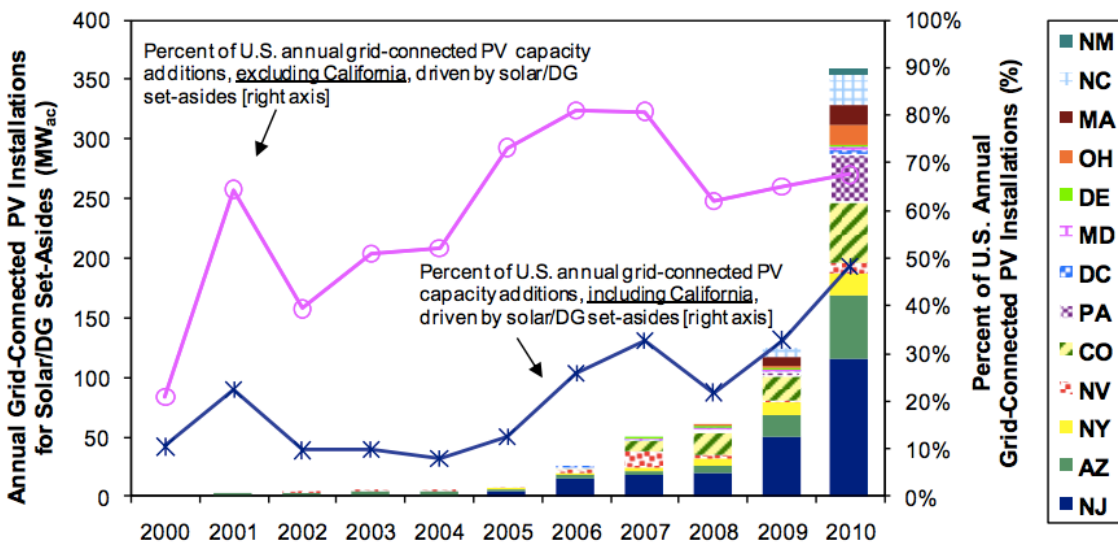


Source: Berkeley Lab

Note: Compliance years are designated by the calendar year in which they begin

Differential support for solar/DG provided in CT and RI via long-term contracting programs with legislatively-established budgets or capacity targets

**Ten states created solar/ DG set-asides since 2007:**  
DE, IL, MA, MD, MO, NC, NH, NM, OH, OR



- Alternative Compliance Payments. ACP must be set high enough to be a less cost effective means of achieving compliance than the investment in resources the RPS is designed to achieve.
- Utility ownership. In many states, there is a limitation on the percentage of resources that may be built by the utility without going out to the market for a competitive bid. Free market advocates will point to the ability to use the competitive marketplace to drive down the costs of resources for consumers, utilities may use the argument that Power Purchase Agreements are treated as imputed debt on their books and lead to a lowering of their credit rating and higher costs of capital across the investments of the utility – impacting the consumer. In recognition of both of these arguments, some states have put in place a cap (for example 25%) of utility owned resources. In other states, the cap is allowed to increase to a higher number (50%) if the utility can demonstrate an economic development benefit to the state.

5. In-State Multipliers. Some states have included in-state multipliers or generation requirements that generation be developed within the state. While the purpose of driving in-state economic development is understood, these provisions should be avoided. There is indication in recent legal challenges that these provisions could be perceived as un-constitutional due to a violation of the interstate commerce clause of the US Constitution. If a state includes an in-state multiplier, they should also include a severability clause that would indicate that if any portion of the standard is found to be unconstitutional, the act is found to be severable and just that provision would be removed by the courts. Alternatives to an in-state multiplier could be multipliers based on energy, economic or other reasons – but not on the geographic boundary of the state.

<b>Geographic Eligibility and Delivery Requirements (Main Tier)</b>	<b>Examples</b>
In-state generation requirement	HI, IA
In-region generation requirement	DC, MI, MN, OR, PA
Electricity delivery required to state or to LSE	
Direct transmission inter-tie between generators and state	TX
Broader delivery requirements to state or to LSE	AZ, CA, KS, MT, NM, NV, NY, OH, WI
Electricity delivery required to broader region	
Generators <u>anywhere</u> outside region must deliver electricity to region	DE, ME, NJ, WA
Generators in <u>limited areas</u> outside region must deliver electricity to region	CT, DC, MA, MD, NH, RI
In-state generation encouragement	
In-state multipliers	CO, MO
Cost-effectiveness test	IL
Limit on RECs from out-of-state generators	NC

6. Rate Caps – Rate caps have been very effective in limiting the potential cost impact of renewables. Further discussion in question #16.
7. REC Tracking and Vintage – Renewable Energy Credits are the general way in which compliance with an RPS is measured. One REC=1 MWh of renewable generation. There are mechanisms (for example WREGIS – the Western Renewable Energy Generation Information System) that are used by multiple states to track RECs and their retirements. The vintage of a REC is the year in

which the REC is generated. Standards should be set on what vintages are acceptable for achieving RPS compliance. For example, RECs must be acquired in the same year they are generated, or within 3 years or 5 years...etc...

8. Scheduled compliance requirement. While overall requirements are set to a percentage by a certain year, legislation may include specific goals per year that are used as an annual compliance requirement leading to the overall goal. Sometimes, the creation of this compliance schedule is left to the utility commission.
9. What utilities must comply with the standard. Some states exclude utilities that are below a certain number of meters. Other states may have one standard for IOUs and a different standard for public utilities. One common statewide standard with meter size exclusion is recommended for simplicity.